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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,578 <i>2</i>	11/20/2001	Nobuaki Ogushi	862-1896 <i>BT D2</i>	8885

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

RAPP, CHAD

ART UNIT PAPER NUMBER

2125

8

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,573²

Applicant(s)

OGUSHI ET AL.

Examiner

Chad Rapp

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/902,160.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3,5,7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-15 and 31 are presented for examination.

Claim Objections

2. Claim 3 is objected to because of the following informalities:

Claim 3, line 3 “vendor side different” should be changed to “vendor side is different”.

Appropriate correction is required.

Claim 3 will have allowable subject matter once the above claim objection is fixed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 4-5 “the Internet”. There is insufficient antecedent basis for this limitation in the claim.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims have the term "Internet" in claims 1 and 6. The specification does not explain how the Internet is used. The specification explains how the internet(small "i") is used. Internet is defined as a specific collection of interconnected networks spanning more than forty countries throughout the world. An internet(small "i") is any connection of two or more computer networks.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 31 is rejected under 35 U.S.C. 102(b) as being anticipated by Kemper et al.

Kemper et al. teaches the claimed invention (claim 31) including a remote monitoring system for maintaining industrial equipment installed at a remote location.

a. Monitor means for monitoring an operating state of the industrial equipment is taught as a plurality of sensors generating output signals relating to the operating conditions(col. 1 lines 50-53);

b. Management means for managing maintenance of the industrial equipment while in communication with said monitor means is taught as the diagnostic center(management means) communication with the first location(col. 1 line 50 to col. 2 line 12);

c. Wherein, during the communication, said management means receives from said monitor means status information of the industrial equipment and transmits to said monitor

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means response information used for maintaining the industrial equipment in response to the received status information is taught as the diagnostic center which includes means for receiving data(status data) sent from the first location whereby the diagnostic analysis is performed and the results are transmitted back to the first location(col. 2 lines 5-12).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Palusamy et al.

Kemper et al. teaches the claimed invention (claim 1) substantially as claimed including a remote maintenance system for maintaining industrial equipment at a remote location comprising:

a. Monitor means for monitoring the industrial equipment is taught as sensors(abstract and col. 1 lines 17 and 52).

Kemper et al. teaches the above listed details of the independent claim 1, however, Kemper et al. does not teach an Internet.

Paulusamy et al. teaches:

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a. Management means for managing maintenance of the industrial equipment through the Internet is taught as the information highway, diagnostic unit and plant equipment(fig. 2);

b. Wherein said management means communicates with said monitor means through the Internet is taught as the information highway, diagnostic unit and plant equipment(fig.2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Palusamy et al. because as such, the Kemper et al reference discloses the claimed invention with the exception that while a global communications network is suggested with various types of data links(col. 2, lines 9-12, col.3 lines 38-45 and col. 7 lines 9-25), there is no explicit disclosure of communication over the claimed "Internet". However, remote maintenance systems that utilize global communication networks based on Internet protocols are well known in the art as exemplified by Palusamy et al.(fig. 2). In using an Internet based communication system, the remote maintenance system of Kemper et al. would be able to facilitate uniform access to the system components in view of the advantages taught by Palusamy et al.

As to claim 2, Kemper et al. teaches that wherein said management means performs centralized maintenance management of respective industrial equipment installed in each of a plurality of factories is taught as a diagnostic system wherein a central diagnostic center receives sensor data relative to operating condition of a plurality of plants(abstract).

As to claim 3 and 5, Kemper et al. teaches that the system of Kemper et al., which suggests communication among globally situated processes as discussed above, clearly contemplates systems in which components are supplied by different vendors requiring

maintenance data collection and countermeasure providing by such different vendors(col. 2 lines 9-12, col. 3 lines 38-45 and col. 7 lines 9-25).

As to claim 4, Kemper et al. teaches:

- a. Wherein a plurality of types of industrial equipments are installed in one factory is taught as a plurality of sensors for obtaining operating parameters of the processes(col. 1 lines 50-53);
- b. Said management means comprises a plurality of management means respectively corresponding to the types of industrial equipment is taught as one or more diagnostic experts relative to a specific piece of equipment(col. 1 lines 32-33).

As to claim 6, Kemper et al. teaches that further comprising means for supplying software of the industrial equipment or guide information associated with an operation of the equipment from said management means to the industrial equipment through the Internet is taught as depending upon the type of plant and which plant is being diagnosed, block 80 will ensure that the proper diagnostic program or proper rule base for an expert system will be initialized(col. 6 lines 17-21 and fig. 4).

As to claim 7, Kemper et al. teaches:

- a. Said monitor means detects an occurrence of a trouble state of the industrial equipment is taught as a plurality of sensors monitor the operating conditions. The signals that exhibit a difference from previous scans and entered into a first storage memory(col. 1 line 50 to col. 2 line 12);
- b. Notifies said management means of status information specifying the trouble state is taught as the data loaded in the first storage memory is transmitted by the first

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location computer means. The data is transmitted to a diagnostic center(col. 1 line 50 to col. 2 line 12);

c. Said management means determines a countermeasure against the trouble state on the basis of the status information is taught as the diagnostic center performs a diagnostic analysis(col. 1 line 50 to col. 2 line 12);

d. Informs said monitor means of response information based on the determined countermeasure is taught as the results of the diagnostic analysis are transmitted back to the first location(col. 1 line 50 to col. 2 line 12).

As to claim 8, Kemper et al. teaches that said monitor means comprises maintenance means for maintaining the industrial equipment on the basis of the response information notified from said management means is taught as once the diagnosis has been performed the diagnostic center may transmit back to the plant information relating to plant status, actions to be taken by the plant operator and any changes to be made(col. 5 line 64 to col. 6 line 16).

11. Claims 9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Palusamy et al. and further in view of Tsuyama et al.

Kemper et al. and Palusamy et al. teach the claimed invention (claim 1) see paragraph number 10 above.

As to claim 9, Tsuyama et al. teaches:

a. Management means has a database for registering information associated with maintenance of the industrial equipment is taught as a large capacity storage unit(106)(col. 3 lines 44-50);

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b. Database registering information for identifying a particular industrial equipment, a trouble state, and a countermeasure against the trouble state, the countermeasure and the trouble state corresponding to each other is taught as failure code, action classification and part number(col. 4 lines 3 and 50-53);

c. Management means looks up said database to determine a countermeasure against a corresponding trouble state is taught as source management table, which is a table that manages source data for explanation of causes wherein one line represents the repair of one failure(col. 8 lines 6-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Tsuyama et al. because the Tsuyama et al. invention provides an integrated quality control system which analyzes quality data in real time at a work station. Since the data can be analyzed at the work station, the turnaround time of analyzing tasks can be shortened.

As to claim 12, Kemper et al. teaches that the management means further comprises access permission means for permitting a user of the industrial equipment to access said database is taught as diagnostic center provides security based on the fact that an authorization must be transmitted(col. 6 lines 41-58).

As to claim 13, Kemper et al. teaches that the management means further comprises communication security means for inhibiting a third party . other than the user of the industrial equipment. from accessing said database is taught as diagnostic center provides security based on the fact that an authorization must be transmitted(col. 6 lines 41-45).

As to claim 14, Kemper et al. teaches that the monitor means comprises access means for accessing said database of said management means is taught as the sensor information is collected by the data collection computer. The data collection computer sends the data through a transmitter/receiver device to the diagnostic center to be placed into the long term data storage(col. 1 line 50 to col. 3 line 24).

12. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Palusamy et al. further in view of Tsuyama and further in view of Seaton et al.

Kemper et al. and Palusamy et al. teach the claimed invention (claim 1) see paragraph number 10 above.

As to claim 10, Seaton et al. teaches that the management means comprises automatic updating means for updating said database on the basis of the information associated with maintenance of the industrial equipment every time the information associated with maintenance of the industrial equipment is exchanged with said monitor means is taught as the supervisor computer maintains up to date status information(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Seaton et al. because Seaton et al. invention allows the Kemper et al. system to automatically update which maintains a real-time up to date status information

As to claim 11, Kemper et al. teaches that the management means further comprises manual updating means for updating said database on the basis of input information from an operator is taught as an expert system diagnostic feature in which, as well, known, the historical

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database is continually updated with newly provided information. Manual input to the management system is provided through the operator terminal(col. 1 lines 61-63 and col. 3 lines 18-27).

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Palusamy et al. and further in view of Fukuda et al.

Kemper et al. and Palusamy et al. teach the claimed invention (claim 1) see paragraph number 10 above.

As to claim 15, Fukuda et al. teaches that wherein the industrial equipment is a semiconductor manufacturing apparatus is taught as a semiconductor production system having a production management section for providing a plurality of processing equipment with process data(col. 5 lines 65-67) Fukuda et al. also discloses a remote locations as other factories (fig 95).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Fukuda et al. combining the remote industrial maintenance system of Kemper et al. with the plurality of remote semiconductor manufacturing facilities of Fukuda et al. , both references have overlapping characteristics such as the monitoring and communicating of industrial process data from various locations to a central collection point.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Rapp whose telephone number is (703)306-4528. The examiner can normally be reached on Mon-Fri 11:00-7:00.

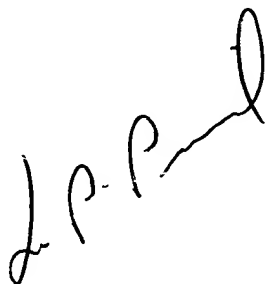
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (703)308-0538. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for official communications, (703)746-7240 for non-official/draft communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-9600.

Chad Rapp
Examiner
Art Unit 2125

cjr
March 6, 2003

A handwritten signature in black ink, appearing to read 'L. Picard', written diagonally across the page.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100